

CLAIM AMENDMENTS

1. (Currently amended) A fuel system of a motor vehicle that is adapted to house and transport a fuel comprising hydrocarbons, wherein said fuel system comprises:

at least one part, comprising plastic or rubber, ~~that is adapted to come into contact with hydrocarbons emanating from said fuel, and~~ that is permeable to hydrocarbons emanating from said fuel, wherein said part would otherwise be adapted to be in contact with hydrocarbon vapors emanating from said fuel ; and

a polytetrafluoroethylene coating, ~~on at least a portion of~~ bonded to a surface of said part that would otherwise be in contact with said fuel, and disposed between said surface and said fuel and adapted to be in contact with said fuel , wherein said coating has a thickness of at least a few tens of microns ~~to 30 microns, and wherein said coating is disposed between at least a~~ hydrocarbon transmitting portion of said part and said hydrocarbon emitting fuel;

~~wherein the coating composition and thickness are~~ that is sufficient to at least substantially reduce the transmission of said emitted hydrocarbons through said coated part to not more than 2 g/24 hours.

2. Cancelled

3. Cancelled

4. (Previously amended) The part according to claim 1, wherein said part comprises plastic.

5. (Previously amended) The part according to claim 1, wherein said part comprises rubber.

6. (Currently amended) A method of at least reducing the transmission of hydrocarbons through a plastic or rubber part of a fuel system of a motor vehicle, that is adapted to house a fuel comprising hydrocarbons, which comprises:

~~depositing, on~~ bonding to a surface of said part, that is adapted to come into contact with

said hydrocarbons, a polytetrafluoroethylene coating having a thickness of at least a few microns to ~~30 microns~~ sufficient to at least reduce hydrocarbon transmission of up to 2 g/24 hours.

7. (Previously amended) The method according to claim 6, wherein the polytetrafluoroethylene coating is deposited by spraying a liquid polytetrafluoroethylene.

8. (Previously amended) The method according to claim 6, wherein the polytetrafluoroethylene coating is formed by depositing a composition that comprises particles of polytetrafluoroethylene, at least one solvent and a bonding agent.

9. (Previously amended) The method according to claim 8, wherein said composition also comprises a pigment in an amount that is sufficient to color the polytetrafluoroethylene coating.

10. (Previously amended) The method according to claim 6, wherein said part is a tubular part, said depositing comprising a liquid composition comprising polytetrafluoroethylene onto an internal wall of the tubular part while the spray nozzle and the tubular part are being moved translationally and rotationally relative to each other.

11. Cancelled

12. (Currently amended) The fuel system of claim 1, wherein said part comprises a pipe and the polytetrafluoroethylene coating ~~is disposed on an outer surface of said pipe~~ has a thickness of about 10 to 35 μm .

13. (Previously amended) The fuel system of claim 1, wherein said part is an O-ring having an outer perimeter and an inner perimeter.

14. (Previously amended) The fuel system of claim 13, wherein the O-ring has a circumferential groove extending along the outer perimeter.

15. (Currently amended) The fuel system of claim ~~13~~ 14, wherein the coating is disposed on an entire exposed surface of said O-ring except in a region of said circumferential groove.

16. (Previously amended) The fuel system of claim 1, wherein said part comprises nitrile PVC.

17. (Previously amended) The fuel system of claim 1, wherein said part is valve membrane comprising an elastomer sheet, and the coating is disposed on said valve membrane.

18. (Previously amended) The method of claim 6, further comprising molding said part.

19. (Currently amended) The method of claim 6, wherein said coating is deposited in a thickness of about 10 to 35 μm .

20. (Previously amended) The method of claim 6, wherein said part is made from an elastomer.

21. Cancelled

22. (Previously amended) The method of claim 6, wherein said part is an O-ring having outer and inner perimeters and a circumferential groove extending along the outer perimeter, and wherein liquid polytetrafluoroethylene is sprayed onto an exposed surface of said O-ring.

23. (Previously amended) The method of claim 22, further comprising rotating said ring while axially moving said spray nozzle back and forth during said spraying.

24. (Previously amended) The method of claim 6, further comprising: depositing a composition comprising: particles of polytetrafluoroethylene, at least one solvent and a binder on a surface of said part,

removing said solvent from said composition while on the surface of said part; and

BEST AVAILABLE COPY

baking the coating under conditions sufficient to cause particles of polytetrafluoroethylene to agglomerate together.

25. (Previously amended) The method of claim 24, wherein said removing comprises evaporating said solvent at 60°C, and baking at 150°C.

26. (Previously amended) The method of claim 25, wherein said plastic material has a softening point that is higher than 180°C.

27. (Currently amended) A motor vehicle, comprising a plurality of parts together defining a fuel system, that is adapted to contain a fuel, for said motor vehicle, comprising hydrocarbons,

wherein at least one of said parts that is adapted to be in contact with hydrocarbons is permeable to vaporous hydrocarbons associated with said fuel and has at least one surface that is adapted to be exposed to hydrocarbon vapors ~~said fuel system~~;

wherein ~~said~~ at least one ~~of said parts~~ surface has a polytetrafluoroethylene coating bonded thereon, adapted to be in contact with said hydrocarbons, that is 10 to 30 at least a few microns thick ~~deposited on said surface of said body in an amount~~ and is a thickness that is sufficient to make said part, together with said polytetrafluoroethylene coating, substantially impermeable to hydrocarbons emanating from said fuel.

28. (Previously amended) The motor vehicle of claim 27, wherein said part comprises at least one of plastic and rubber.

29. (Previously amended) The motor vehicle of claim 28, wherein said part comprises an elastomer.

30. Cancelled

31. Cancelled

32. (Previously amended) The motor vehicle of claim 27, wherein said part is an O-ring having outer and inner perimeters, and a circumferential groove extending along the outer perimeter, and wherein the coating is disposed on an entire exposed surface of said O-ring except in a region of said circumferential groove.

33. (Previously amended) The motor vehicle of claim 27, wherein said part is a valve comprising an elastomer valve membrane, and said coating is disposed on said valve membrane.